AGENDA ITEM E-7

CITY OF LODI
COUNCIL COMMUNICATION

AGENDA TITLE: Adopt Resolution Authorizing City Manager to Execute Additional Professional Services Task Order with West Yost Associates, of Davis, for White Slough Water Pollution Control Facility Discharge Permit Compliance Activities ($198,000) and Appropriating $250,000

MEETING DATE: June 3,2009

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Adopt a resolution authorizing the City Manager to execute an additional professional services task order with West Yost Associates, of Davis, for White Slough Water Pollution Control Facility discharge permit compliance activities in the amount of $198,000 and appropriating $250,000.

BACKGROUND INFORMATION: White Slough WPCF is experiencing significant biosolids storage capacity limitations during winter months and the potential loss of future land application options during warm months due to permit requirements. The proposed biosolids storage and dewatering facilities will allow for removal of biosolids during periods when they cannot be land applied. Additional operational goals include:

- Providing additional biosolids storage capacity; and
- Providing the capability to remove one biosolids storage lagoon from service and perform maintenance while the plant remains in operation.

Constructing a biosolids dewatering and storage facility will assist the City of Lodi in meeting future discharge permit requirements and provide additional biosolids handling capacities. The structure will consist of an 8-foot high platform with a steel canopy roof for the dewatering equipment and the chemical feed equipment. The dewatering equipment will consist of two skid-mounted rotary fan presses. Appurtenant facilities will include piping, pumps, and covered storage bays for the dewatered sludge. The estimated cost of construction is $3.5 million that will be paid from the bond proceeds for the White Slough WPCF construction projects. The project will be constructed in early 2010.

The White Slough WPCF Master Plan developed prior to the 2003 Phase 1 Improvements project anticipated that biosolids may become an issue during future permit applications and discussed the dewatering facility.

Staff is requesting an additional task order to the existing Master Agreement with West Yost Associates be approved for professional services for the design work necessary for this facility to be constructed (proposal attached). West Yost Associates has designed the Phase 1 through 3 construction projects and is uniquely qualified to design the biosolids dewatering and storage facilities. This may be the final

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APPROVED: _____
Blair King, City Manager

design task order for this round of plant upgrades. In preparation for the next permit cycle, staff plans to re-qualify the City's wastewater consultant for this future work.

The requested funding includes design work, plan check fees and other costs associated with the project design.

FISCAL IMPACT: Funding is available from the unused 2007 Wastewater COP fund balance.

FUNDING AVAILABLE: Requested Appropriation:
$250,000 2007 Wastewater COP Funds (172026)

Jordan Ayers
Deputy City Manager/Internal Services Director

F. Wally Sandelin
Public Works Director

Prepared by Gary Wiman, Construction Project Manager

FWS/GW/pmf

Attachment

cc: Purchasing Officer
Water Services Manager

WEST YOST
ASSOCIATES
Consulting Engineers

January 9,2009

Mr. Charles Swimley
City of Lodi
Municipal Service Center
1331 South Ham Lane
Lodi CA 95242-3995

SUBJECT: Proposal for Engineering Services — Biosolids Dewatering Facilities for White Slough WPCF, Lodi, CA

Dear Charlie:

We appreciate this opportunity to provide a proposal for completing design work on the Biosolids Dewatering and Storage Facilities, and we look forward to working with you on this important project for the White Slough WPCF.

BACKGROUND

White Slough is experiencing significant capacity limitations in biosolids storage Lagoon No. 2. The City of Lodi (City) has recently completed concrete lining of Storage Lagoon No. 1 and the structural portion of a sludge pump station. In the near future, the City intends to complete the mechanical and electrical equipping of the sludge pump station and construct a dewatering facility and a dewatered biosolids storage facility.

West Yost Associates (WYA) completed a preliminary design effort for these facilities in April, 2008. The resulting documents consisted of two technical memorandums and preliminary plan and section drawings. The preliminary drawings are attached to this proposal. Technical Memorandum No. 1 (April 16, 2008) presented an analysis of present and projected future biosolids production rates for the Lodi plant. Technical Memorandum No. 2 (May 12,2008) was an examination of the cost of three alternative approaches to dewatering and dewatered solids handling. The preliminary design also included initial sizing of the sludge pump, the lagoon mixers, and the rotary fan press dewatering units.

PROJECT UNDERSTANDING

We understand that the City intends to complete construction of the sludge pump station, construct a dewatering facility, and construct a biosolids storage facility which includes two months of biosolids storage, as recommended in Technical Memorandum No. 2. The dewatering and storage facilities are to be located west of the digester complex and south of the sludge storage lagoons, on land that was used for the soil stockpile duiing Phase 3 construction. Dewatered and stored biosolids will either be land applied using a custom spreading service, typically prior to planting in spring and fall, or disposed of off-site by a contracted service provider.

SCOPE

WYA will provide engineering design for biosolids pumping, dewatering and storage facilities. The design will include:

1. Detailed mechanical design and electrical design of the sludge pump station. We expect the design to include the capability to start the sludge pump in a low-head, recirculating mode in order to establish flow, and the capability to flush sludge piping with recycled water. The design will also include recycled water piping to the dewatering facility. Because the sludge pump will see a wide range of sludge consistencies with varying solids concentrations, the pump will be equipped with a variable-frequency drive;
2. Design of the dewatering facility. The dewatering facility will consist of an approximately 5,000-gallon temporary storage tank for pumped sludge; two rotary fan press skids with integral sludge pumps, polymer injection and controls; and a screw conveyor for transferring dewatered solids to the storage facility. We expect to design the dewatering facility to allow for the selection of either Prime Solutions or Fournier rotary presses, both of which were pilot tested at White Slough. We expect the facility to be an open, steel-framed structure. The dewatering facility will also include a small heated prefabricated building for polymer storage and dispensing;
3. Design of the biosolids storage and loading facility. The structure is expected to consist of three approximately 50-foot wide concrete bays of varying lengths. We expect the roof structure to be a conventional steel structure, however, we will examine the possibility of using a pre-engineered/pre-fabricated roof design as a cost-saving measure; and
4. Grading and paving design for truck access to the biosolids storage facility. We expect access to be from the south, via the road leading to the NCPA facility.

Task 1. Prepare 75 Percent Complete Design Submittal

We will prepare a 75 percent complete design submittal. The 75 percent complete design submittal will include process & instrumentation diagrams, site plans, overall structural and mechanical plans, and an updated estimate of probable construction cost. Six (6) sets of documents will be submitted for review. This submittal is intended to allow City staff and other members of the project team to review and comment on the design approach prior to completing detailed design of each project component. WYA will perform a general quality assurance review of all documents prior to submission. Task 1 includes the following:

1. Attend design kickoff and site inspection meeting, and attend up to two additional meetings or site inspections;
2. Provide Civil, Structural, Mechanical and Electrical drawings and Process and Instrumentation Diagrams (P&IDs) at the 75 percent complete design level; and
3. Provide drafts of Division 0 and Division 1 Technical Specifications.

Task 2. Prepare 100 Percent Complete Design Submittal

We will prepare a 100 percent complete design submittal for final review and comment by the City and plant staff. The 100 percent complete design submittal will reflect all comments regarding the 75 percent complete submittal, and will be a complete biddable set. Final drawings will be submitted on polyester film and in electronic (AutoCAD 2007) format. Final specifications will be submitted on printer-ready letter size paper, and in electronic (Microsoft Word 2003) format. Task 2 includes the following:

1. Revise 75 percent complete design documents to reflect City and WYA design team review comments; and
2. Prepare Division 2 through Division 16 Technical Specifications.

Task 3. Cost Estimate

On completion of the design we will provide an opinion of the probable cost of construction.

Task 4. Project Management

This task consists of tracking progress, schedule, and budget; coordinating with subconsultants; and ensuring that the City's expectations are met in all aspects of the project. WYA's internal project management tools will be utilized to provide timely, detailed accounts of budget status to the project manager. Project progress will be tracked by the project manager on a regular basis and compared to the schedule and budget status to control costs and ensure timely delivery of services.

ASSUMPTIONS

Our proposal is based on the following assumptions:

- No environmental compliance is included.
- No city building department review or compliance is included.
- Design services during construction are not included.

BUDGET AND SCHEDULE

The proposed budget for each work task is shown in Table 1.

Table 1. Proposed Budget

Task	Budget, dollars
Task 1. 75 Percent Design Submittal	130,000
Task 2. 100 Percent Design Submittal	54,000
Task 3. Cost Estimate	7,000
Task 4. Project Management	7,000
Total	198,000

We will not exceed the proposed budget without prior authorization from the City.

A preliminary design schedule with major milestones is shown in Table 2, and is based on an assumed date of March 2,2009, for Notice to Proceed.

Table 2. Proposed Design Schedule

Milestone	Date
Notice to Proceed	March 2,2009
75 Percent Complete Design Submitted	April 15,2009
Receive 75 Percent Comments from City	May 5,2009
100 Percent Design Submittal	May 27,2009
Receive 100 Percent Comments from City	June 10,2009
Final Design Submittal	June 24,2009

Again, we appreciate the opportunity to provide engineering services for the City of Lodi. Please call either of the undersigned if you have any questions or comments.

Sincerely,

WEST YOST ASSOCIATES

David J. Anderson
Engineering Manager

Scott Heald
Project Engineer

DJA:PCH:nmp

RESOLUTION NO. 2009-70

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING ADDITIONAL TASK ORDER FOR WEST YOST ASSOCIATES FOR WHITE SLOUGH WATER POLLUTION CONTROL FACILITY DISCHARGE PERMIT COMPLIANCE ACTIVITIES AND FURTHER APPROPRIATING FUNDS

WHEREAS, White Slough Water Pollution Control Facility is experiencing significant biosolids storage capacity limitations during winter months and the potential loss of future land application options during warm months due to permit requirements. The proposed biosolids storage and dewatering facilities will allow for removal of biosolids during periods when they cannot be land applied; and

WHEREAS, constructing a biosolids dewatering and storage facility will assist the City of Lodi in meeting future discharge permit requirements and provide additional biosolids handling capacities; and

WHEREAS, staff recommends an additional task order to the existing Master Agreement with West Yost Associates be approved for professional services for the design work necessary for this facility to be constructed because they are uniquely qualified to design the biosolids dewatering and storage facilities; and

WHEREAS, the funding appropriation includes design work, plan check fees, and other costs associated with the project design.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize an additional task order with West Yost Associates, of Davis, California, for White Slough Water Pollution Control Facility discharge permit compliance activities in the amount of $198,000; and

BE IT FURTHER RESOLVED that funds in the amount of $250,000 be appropriated from 2007 Wastewater COP funds.

Dated: June 3, 2009

I hereby certify that Resolution No. 2009-70 was passed and adopted by the City Council of the City of Lodi in a regular meeting held June 3, 2009, by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Johnson, Katzakian, Mounce, and Mayor Hansen

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

RANDI JOHL
City Clerk